

## CLAIMS

1. A magnetron of the type having a cathode and a surrounding anode, and a plurality of cavities defined by anode vanes comprising at least a first ring strap arranged generally around the cathode and in electrical contact with alternate ones of the vanes, the first ring strap having one or more protruding regions which protrude in a radial direction between the cathode and anode at one or more positions so as to increase the capacitance between the first ring strap and a second strap or between the first strap and anode vanes to which the first strap is not connected.
2. A magnetron according to claim 1, wherein the one or more positions are between the anode vanes to which the at least first ring strap is connected.
3. A magnetron according to claim 1 or 2, wherein the protruding regions protrude radially inwards.
4. A magnetron according to any of claims 1, 2 or 3, wherein the protruding regions protrude towards tips of the anode vanes.
5. A magnetron according to any preceding claim, comprising a second strap generally surrounded by the first ring strap, wherein the one or more protruding regions of the first ring strap protrude towards the second strap so as to increase the capacitance between the first and the second straps.
6. A magnetron according to any preceding claim, wherein the protruding regions are arranged to increase the capacitance for alternate vanes.

7. A magnetron according to any preceding claim, wherein the protruding regions are arranged asymmetrically around a portion of the at least first strap ring.
- 5 8. A magnetron according to claim 7, wherein the protruding regions are arranged on one half of the at least first strap ring.
9. A magnetron according to any preceding claim, wherein  
10 the protruding regions comprise deviations in the first strap ring itself.
10. A magnetron according to any of claims 1 to 8, wherein the protruding regions comprise thickenings of the  
15 first strap ring.
11. A magnetron comprising a plurality of anode vanes and a first strap in contact with alternate ones of the vanes, the strap having a protruding region.  
20
12. A magnetron as claimed in any preceding claim, wherein the first strap has a plurality of protruding regions.
- 25 13. A magnetron as claimed in any preceding claim, wherein the protruding regions are substantially periodically spaced around at least a portion of the strap.
- 30 14. A magnetron as claimed in any previous claim, wherein the strap comprises an open ring.
15. A magnetron as claimed in any one of claims 1 to 14, wherein the strap comprises a closed ring.

16. A magnetron as claimed in any previous claim, wherein the strap is adjustable.

17. A magnetron as claimed in claim 16, wherein the strap  
5 is flexible.

18. A magnetron as claimed in any of claims 11 to 17, further comprising a second strap in contact with alternate others of the vanes.

10

19. A magnetron as claimed in claim 10, wherein the second strap includes at least one protruding region.

20. A magnetron as claimed in any preceding claim,  
15 including a plurality of straps, at least some of which have at least one protruding region.